

What is claimed is:

- 1 1. A floor sweep assembly for a grain dryer, comprising:
 - 2 a framework which is rotatable around a central axis, wherein said
 - 3 framework includes (i) a first primary support member which extends radially
 - 4 outwardly relative to said central axis, (ii) a second primary support member
 - 5 which extends radially outwardly relative to said central axis, and (iii) a first
 - 6 ancillary support member which is spaced apart from said central axis and
 - 7 extends between said first primary support member and said second primary
 - 8 support member; and
 - 9 a first wiper positioned relative to said framework such that, when said
 - 10 floor sweep assembly is viewed in a plan view, said framework and said first
 - 11 wiper define (i) a first primary intersection of said first wiper and said first primary
 - 12 support member, and (ii) a first ancillary intersection of said first wiper and said
 - 13 first ancillary support member.
- 1 2. The floor sweep assembly of claim 1, wherein:
 - 2 said wiper includes an inboard wiper end and an outboard wiper end, and
 - 3 said first primary intersection occurs at a location which is interposed
 - 4 between said inboard wiper end and said outboard wiper end.
- 1 3. The floor sweep assembly of claim 1, wherein:
 - 2 said first primary support member includes an inboard primary support
 - 3 end and an outboard primary support end, and
 - 4 said first primary intersection occurs at a location which is interposed
 - 5 between said inboard primary support end and said outboard primary support
 - 6 end.

1 4. The floor sweep assembly of claim 1, wherein:
2 said first ancillary support member includes a left lateral end and a right
3 lateral end,
4 said first ancillary intersection occurs at a location which is interposed
5 between said left lateral end and said right lateral end.

1 5. The floor sweep assembly of claim 4, wherein:
2 said first lateral end is positioned adjacent to said first primary support
3 member, and
4 said second lateral end is positioned adjacent to said second primary
5 support member.

1 6. The floor sweep assembly of claim 1, wherein:
2 said first wiper is further positioned relative to said framework such that,
3 when said floor sweep assembly is viewed in said plan view, said framework and
4 said first wiper define a second primary intersection of said first wiper and said
5 second primary support member.

1 7. The floor sweep assembly of claim 1, wherein:
2 said framework further includes (i) a third primary support member which
3 extends radially outwardly relative to said central axis, and (ii) a second ancillary
4 support member which is spaced apart from said central axis and extends
5 between said second primary support member and said third primary support
6 member.

1 8. The floor sweep assembly of claim 7, further comprising:
2 a second wiper positioned relative to said framework such that, when said
3 floor sweep assembly is viewed in said plan view, said framework and said
4 second wiper define a second primary intersection of said second wiper and said
5 first primary support member.

1 9. A floor sweep assembly for a grain dryer, comprising:
2 a framework which is rotatable around a central axis, wherein said
3 framework includes (i) a first primary support member which extends radially
4 outwardly relative to said central axis, and (ii) a second primary support member
5 which extends radially outwardly relative to said central axis; and
6 a first wiper positioned relative to said framework such that, when said
7 floor sweep assembly is viewed in a plan view, said framework and said first
8 wiper define (i) a first primary intersection of said first wiper and said first primary
9 support member, and (ii) a second primary intersection of said first wiper and
10 said second primary support member.

1 10. The floor sweep assembly of claim 9, wherein:
2 said framework further includes a first ancillary support member which
3 extends between said first primary support member and said second primary
4 support member, and
5 said first wiper is further positioned relative to said framework such that,
6 when said floor sweep assembly is viewed in said plan view, said framework and
7 said first wiper define a first ancillary intersection of said first wiper and said first
8 ancillary support member.

- 1 11. The floor sweep assembly of claim 9, wherein:
2 said framework further includes a third primary support member which
3 extends radially outwardly relative to said central axis, and
4 said first wiper is further positioned relative to said framework such that,
5 when said floor sweep assembly is viewed in said plan view, said framework and
6 said first wiper define a third primary intersection of said first wiper and said third
7 primary support member.
- 1 12. The floor sweep assembly of claim 11, wherein:
2 said second primary support member includes an inboard primary support
3 end and an outboard primary support end, and
4 said second primary intersection occurs at a location which is interposed
5 between said inboard primary support end and said outboard primary support
6 end.
- 1 13. The floor sweep assembly of claim 11, further comprising (i) a first
2 ancillary support member which extends between said first primary support
3 member and said second primary support member, and (ii) a second ancillary
4 support member which extends between said second primary support member
5 and said third primary support member, wherein:
6 said first wiper is further positioned relative to said framework such that,
7 when said floor sweep assembly is viewed in said plan view, said framework and
8 said first wiper define (i) a first ancillary intersection of said first wiper and said
9 first ancillary support member, and (ii) a second ancillary intersection of said first
10 wiper and said second ancillary support member.

- 1 14. The floor sweep assembly of claim 13, wherein:
- 2 said first ancillary support member includes a first left lateral end and a
- 3 first right lateral end,
- 4 said second ancillary support member includes a second left lateral end
- 5 and a second right lateral end,
- 6 said first ancillary intersection occurs at a location which is interposed
- 7 between said first left lateral end and said first right lateral end, and
- 8 said second ancillary intersection occurs at a location which is interposed
- 9 between said second left lateral end and said second right lateral end.

- 1 15. The floor sweep assembly of claim 9, further comprising:
- 2 a second wiper positioned relative to said framework such that, when said
- 3 floor sweep assembly is viewed in said plan view, said framework and said
- 4 second wiper define a third primary intersection of said second wiper and said
- 5 second primary support member.

1 16. The floor sweep assembly of claim 15, wherein:
2 said framework further includes (i) a third primary support member which
3 extends radially outwardly relative to said central axis, (ii) a first ancillary support
4 member which extends between said first primary support member and said
5 second primary support member, and (iii) a second ancillary support member
6 which extends between said second primary support member and said third
7 primary support member; and

8 said second wiper is further positioned relative to said framework such
9 that, when said floor sweep assembly is viewed in said plan view, said
10 framework and said second wiper define (i) a first ancillary intersection of said
11 first wiper and said first ancillary support member, and (ii) a second ancillary
12 intersection of said second wiper and said second ancillary support member.

SEARCHED SERIALIZED INDEXED

1 17. A grain dryer, comprising:

2 a wall assembly having (i) an inner wall and an outer wall which defines a
3 grain flow path therebetween, and (ii) a discharge slot defined in said wall
4 assembly thereof through which grain may flow;

5 a grain shelf floor positioned relative to said wall assembly such that grain
6 flowing through said discharge slot advances onto said grain shelf floor;

7 a floor sweep assembly positioned vertically above said grain shelf floor;
8 and

9 a motor for rotating said floor sweep assembly about a central axis,

10 wherein said floor sweep assembly includes a framework having (i) a first
11 primary support member which extends radially outwardly relative to said central
12 axis, (ii) a second primary support member which extends radially outwardly
13 relative to said central axis, and (iii) a first ancillary support member which is
14 spaced apart from said central axis and extends between said first primary
15 support member and said second primary support member, and

16 wherein said floor sweep assembly further includes a wiper positioned
17 relative to said framework such that, when said floor sweep assembly is viewed
18 in a plan view, said framework and said wiper define (i) a first primary
19 intersection of said wiper and said first primary support member, and (ii) a first
20 ancillary intersection of said wiper and said first ancillary support member.

1 18. The floor sweep assembly of claim 17, wherein:

2 said wiper is further positioned relative to said framework such that, when
3 said floor sweep assembly is viewed in said plan view, said framework and said
4 wiper define a second primary intersection of said wiper and said second primary
5 support member.

1 19. The floor sweep assembly of claim 17, wherein:
2 wherein said framework further has (i) a third primary support member
3 which extends radially outwardly relative to said central axis, (ii) a fourth primary
4 support member which extends radially outwardly relative to said central axis,
5 and (iii) a second ancillary support member which is spaced apart from said
6 central axis and extends between said third primary support member and said
7 fourth primary support member, and
8 wherein said floor sweep assembly further includes a second wiper
9 positioned relative to said framework such that, when said floor sweep assembly
10 is viewed in said plan view, said framework and said second wiper define (i) a
11 second primary intersection of said wiper and said first primary support member,
12 and (ii) a second ancillary intersection of said wiper and said first ancillary
13 support member.

1 20. The floor sweep assembly of claim 19, wherein:
2 said first ancillary support member includes a first left lateral end and a
3 first right lateral end,
4 said second ancillary support member includes a second left lateral end
5 and a second right lateral end,
6 said first ancillary intersection occurs at a location which is interposed
7 between said first left lateral end and said first right lateral end, and
8 said second ancillary intersection occurs at a location which is interposed
9 between said second left lateral end and said second right lateral end.